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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,705	01/27/2004	Anna Lee Tonkovich	03-091	9291

7590 09/15/2005

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EXAMINER

LANGEL, WAYNE A

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

T.V

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/765,705	TONKOVICH ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Wayne Langel	1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-70 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-70 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4-12-04, 11-15-04, 5-9-05, 6-3-05, 8-31-05</u> | 6) <input type="checkbox"/> Other: ____  |

*Handwritten signature/initials*

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over TeGrotenhuis et al in view of Nystrom et al. TeGrotenhuis et al disclose a method of using a microchannel device wherein a reaction microchamber 52 is in thermal contact with a heat exchange channel 61. (See the Abstract and Paragraph [0070].) The difference between the process disclosed by TeGrotenhuis et al, and that recited in applicants' claims, is that TeGrotenhuis et al do not disclose that the process should be carried out for the production of hydrogen peroxide by reacting hydrogen and oxygen. However TeGrotenhuis et al teach in Paragraph [0123] that one form of the invention is a differential temperature reactor comprising an exothermic reaction channel having a channel inlet and a channel outlet and at least one exothermal reactant microchannel flow path from the channel inlet to the channel outlet; an exothermic reaction catalyst in the exothermic reaction channel; and at least one heat exchange channel in thermal contact with the exothermic reaction channel. Nystrom et al disclose at col. 2, lines 4-6 that the reaction between hydrogen and oxygen is highly exothermic. It would be obvious from Nystrom et al to employ the process of TeGrotenhuis et al for producing hydrogen peroxide by catalytically reacting hydrogen and oxygen, since TeGrotenhuis et al suggest in Paragraph [0116] that the invention may be employed in a wide variety

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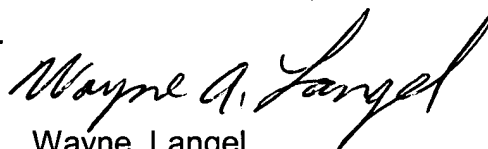
of reactions as would occur to those of skill in the art, and Nystrom et al teach that the reaction between hydrogen and oxygen is exothermic.

The other references are made of record for disclosing microchannel reactors.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne Langel whose telephone number is 571-272-1353. The examiner can normally be reached on Mondays to Fridays from 8 to 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Wayne Langel  
Primary Examiner  
Art Unit 1754